CLAIMS

What is claimed is:

1   1.   A method for diagnosing consumer electronic devices, the method

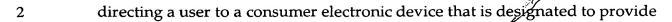2   comprising:

3   receiving information indicative of a problem with one or more potentially

4   faulty consumer electronic devices; and

5   providing a diagnostic procedure to control diagnosis of the one or more

6   potentially faulty consumer electronic devices by at least one testing consumer

7   electronic device capable of diagnosing the one or more potentially faulty consumer

8   electronic devices.

2.   The method of claim 1 wherein the at least one testing consumer electronic
device is coupled to the one or more potentially faulty consumer electronic devices
via a home network.

1   3.   The method of claim 1 wherein the diagnostic procedure instructs a user to

2   connect the at least one testing consumer electronic device to the one or more

3   potentially faulty consumer electronic devices specifically for the diagnosis.

1   4.   The method of claim 1 further comprising:

2   providing a user interface for performing the diagnostic procedure.

1   5.   The method of claim 1 further comprising:

2   directing a user to a consumer electronic device that is designated to provide

3   a user interface for performing the diagnostic procedure.

1   6.   The method of claim 1 further comprising:

2   receiving the diagnostic procedure over a public network.

1   7.   The method of claim 1 further comprising:

2   receiving the diagnostic procedure from a home network device.

1   8.   The method of claim 6 further comprising:

2   downloading the diagnostic procedure to a diagnostic procedure host device.

1   9.   The method of claim 8 wherein the diagnostic procedure host device is a

2   component of the testing consumer electronic device.

1   10.   The method of claim 2 further comprising:

2   providing direct communication between a user and a human test technician

3   using connection of the home network to a public network.

1   11.   A method for diagnosing consumer electronic devices, the method

2   comprising:

3   collecting data concerning functionality of a potentially faulty consumer

electronic device using a testing consumer electronic device capable of diagnosing

5   the potentially faulty consumer electronic device;

6   utilizing the collected data to identify a problem with the potentially faulty

7   consumer electronic device; and

8   when the problem is identified, notifying the user about the problem.

1   12.   The method of claim 11 wherein the testing consumer electronic device

2   communicates with the potentially faulty consumer electronic device using a home

network.

13.   The method of claim 12 wherein collecting data further comprises:

      instructing the testing consumer electronic device to remotely control a

     certain operation of the potentially faulty consumer electronic device and to capture

     data resulting from the certain operation; and

5   receiving the resulting data from the testing consumer electronic device.

1   14.   The method of claim 12 wherein collecting data further comprises:

2   instructing the testing consumer electronic device to download a sequence of

3   stimulus and measurement instructions to the potentially faulty consumer electronic

4   device for execution and to capture data resulting from the execution; and

5   receiving the resulting data from the testing consumer electronic device.

1   15.   The method of claim 12 wherein collecting data further comprises:

2   instructing the testing consumer electronic device to generate test data on one

3 of a plurality of streaming outputs, to direct the test data to a streaming input of the

4 potentially faulty consumer electronic device, and to capture output data of the

5 potentially faulty consumer electronic device; and

6   receiving the output data of the potentially faulty consumer electronic device

7 from the testing consumer electronic device.

16.   The method of claim 11 wherein collecting data further comprises:

         instructing the testing consumer electronic device to test an operation of the

potentially faulty consumer electronic device pertaining to communication between

the potentially faulty consumer electronic device and an operational user interface,

the operational user interface being known to function properly; and

         receiving test data from the testing consumer electronic device.

17.   The method of claim 11 wherein the testing consumer electronic device

2 communicates with the potentially faulty consumer electronic device using a

3 connectivity means that is established specifically for the diagnosis.

1   18.   The method of claim 11 further comprising:

2   determining which of a plurality of potentially faulty consumer electronic

3   devices has a fault.

1   19.   The method of claim 12 wherein collecting data further comprises:

providing direct communication between a user and a test technician via an

operational interface of any one of the testing consumer electronic device and the

4   potentially faulty consumer electronic device using connection of the home network

5   to a public network.

1   20.   The method of claim 12 wherein collecting data further comprises:

2   comparing a current operation of the potentially faulty consumer electronic

3   device with a prior operation of the potentially faulty consumer electronic device

4   that was recorded before the problem arose.

21.   The method of claim 12 wherein collecting data further comprises:

          comparing a current operation of the potentially faulty consumer electronic

device with an operation of a similar consumer electronic device that is known to

operate properly.

1   22.   The method of claim 11 wherein the potentially faulty consumer electronic

2   device is diagnosed using test media generated for the potentially faulty consumer

3   electronic device before the problem arose.

1   23.   An apparatus for diagnosing consumer electronic devices, the apparatus

2   comprising:

3   means for receiving information indicative of a problem with one or more

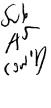4   potentially faulty consumer electronic devices; and

5   means for providing a diagnostic procedure to control diagnosis of the one or

6   more potentially faulty consumer electronic devices by at least one testing consumer

7   electronic device capable of diagnosing the one or more potentially faulty consumer

8   electronic devices.

1   24.   An apparatus for diagnosing consumer electronic devices, the apparatus

2   comprising:

3   a user interface to facilitate user input of information indicative of a problem

4   with one or more potentially faulty consumer electronic devices; and

5   a gateway device to provide a diagnostic procedure to control diagnosis of the

6   one or more potentially faulty consumer electronic devices by at least one testing

7   consumer electronic device capable of diagnosing the one or more potentially faulty

8   consumer electronic devices.

1   25.   An apparatus for diagnosing consumer electronic devices, the apparatus

2   comprising:

3   means for collecting data concerning functionality of a potentially faulty

4   consumer electronic device using a testing consumer electronic device capable of

5   diagnosing the potentially faulty consumer electronic device;

6   means for utilizing the collected data to identify a problem with the

7   potentially faulty consumer electronic device; and

8   means for notifying the user about the problem when the problem is

9   identified.

26.   An apparatus for diagnosing consumer electronic devices, the apparatus

comprising:

        a data collector to collect data concerning functionality of a potentially faulty

consumer electronic device using a testing consumer electronic device capable of

diagnosing the potentially faulty consumer electronic device;

        a problem identifier to utilize the collected data to identify a problem with

the potentially faulty consumer electronic device; and

        a user interface to notify the user about the problem when the problem is

identified.

27.   A system comprising:

        one or more potentially faulty consumer electronic devices;

        at least one testing consumer electronic device, coupled to the one or more

potentially faulty consumer electronic devices; and

        a diagnostic procedure host device, coupled to the at least one testing

consumer electronic device, to control diagnosis of the one or more potentially faulty

consumer electronic devices by the at least one testing consumer electronic device.

28.   The system of claim 27 further comprising:

        a gateway device, coupled to the diagnostic procedure host device, to request

a diagnostic procedure associated with the one or more potentially faulty consumer

electronic devices over a network and to download the diagnostic procedure to the

diagnostic procedure host device.

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29.   The system of claim 27 wherein the diagnostic procedure host device is a

component of the testing consumer electronic device.